

Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Docket No. 16869N-091900US

Sheet 1 of 15

1 / 15

FIG. 1

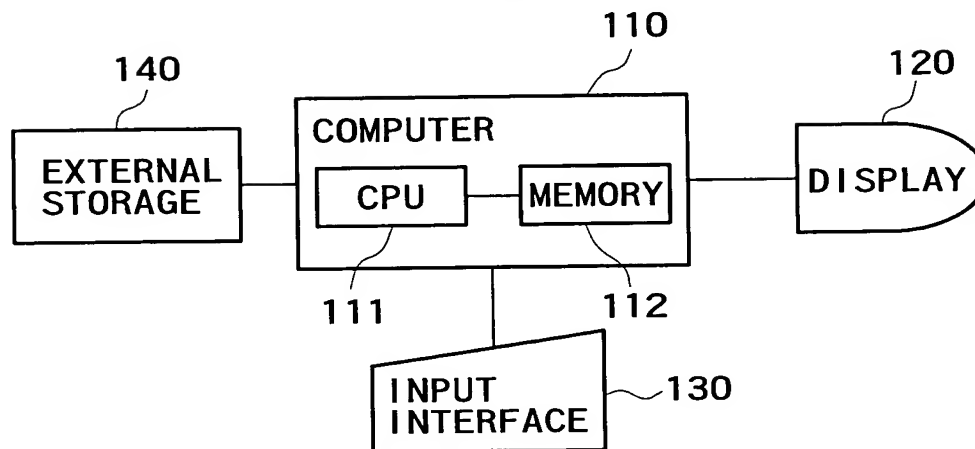
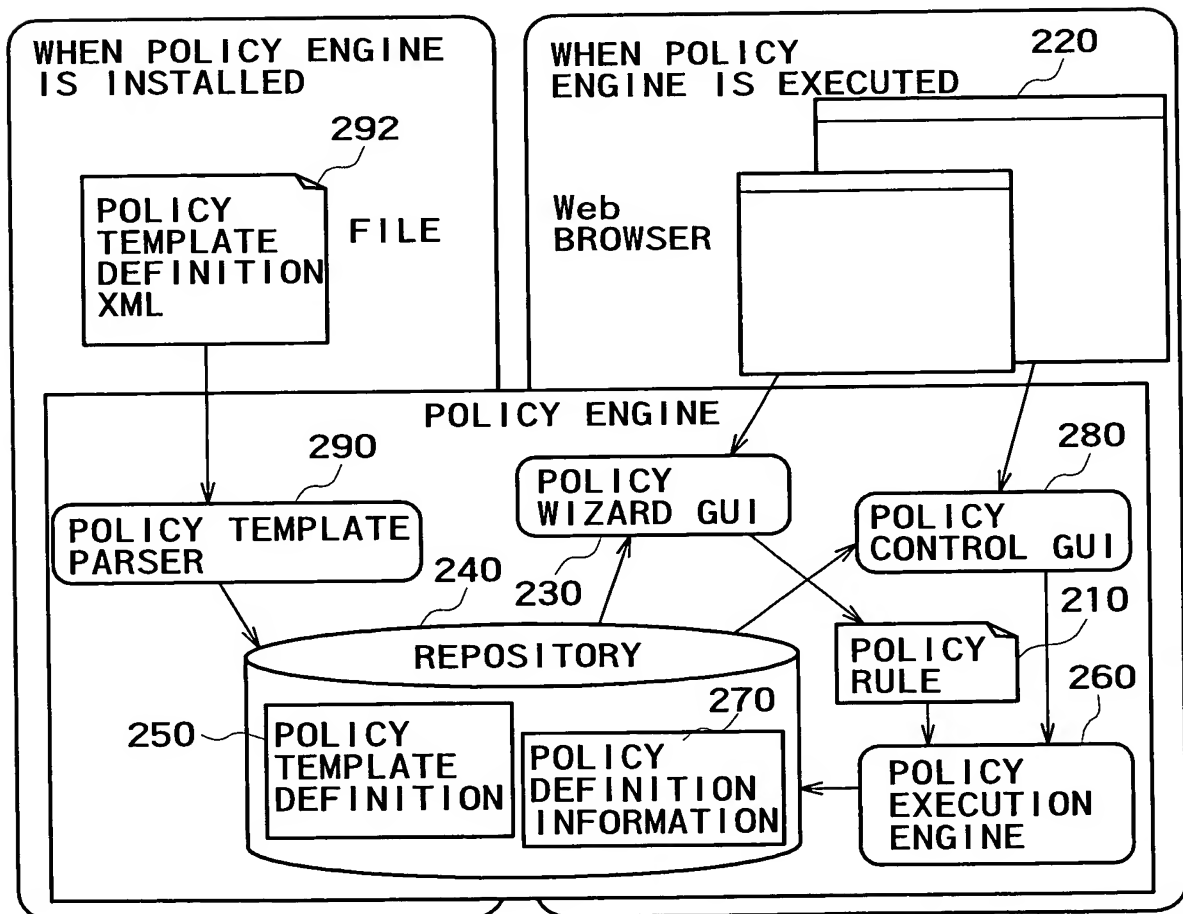


FIG. 2



Applicant: Masanori HONDA, et al.

Title : Method and System for Job Management

Atty Docket No. 16869N-091900US

Sheet 2 of 15

2 / 13

FIG. 3

ELEMENT NAME	OVERVIEW
POLICY	<ul style="list-style-type: none"> • POLICY DEFINITION XML FILE'S ROOT ELEMENT
POLICY GROUP	<ul style="list-style-type: none"> • AN ELEMENT FOR GROUPING POLICY RULES AND POLICY GROUPS • THE POLICY GROUP IS USED FOR MARSHALING POLICY RULES WITHIN A THREE STRUCTURE • DEFINES A CALENDER (HOLIDAYS)
POLICY RULE	<ul style="list-style-type: none"> • AN ELEMENT FOR GROUPING POLICY CONDITIONS, POLICY ACTIONS, AND POLICY RULES • A POLICY RULE DEFINED AS A CHILD ELEMENT FOR A POLICY OR POLICY GROUP (THAT IS, A POLICY RULE WITHOUT A HIGHER-LEVEL POLICY RULE) IS CALLED A ROOT POLICY RULE (OR SIMPLY CALLED A POLICY RULE) • A POLICY RULE DEFINED AS A CHILD ELEMENT FOR ANOTHER POLICY RULE IS CALLED A SUB-POLICY RULE • WHEN A POLICY CONDITION DEFINED AS A CHILD ELEMENT FOR A POLICY RULE IS ESTABLISHED, A POLICY ACTION DEFINED AS A SIBLING ELEMENT AND A SUB-POLICY RULE WILL BE EXECUTED
POLICY WAIT EVENT CONDITION	<ul style="list-style-type: none"> • WAITS FOR AN EVENT • USED FOR WRITING AN EVENT-DRIVEN POLICY
POLICY SCHEDULE CONDITION	<ul style="list-style-type: none"> • WAITS FOR A SPECIFIED TIME • USED FOR EXECUTING A POLICY ACTION AT A PRESELECTED TIME
POLICY COMMAND RESULT CONDITION	<ul style="list-style-type: none"> • WAITS FOR A SPECIFIED POLICY COMMAND ACTION TO TERMINATE • EXECUTES A POLICY ACTION DEFINED AS A SIBLING ELEMENT WHEN THE RESULT OF POLICY COMMAND ACTION EXECUTION COINCIDES WITH A SPECIFIED VALUE • DEFINES THE VALIDITY PERIOD OF A ROOT POLICY RULE
COMPOUND POLICY ACTION	<ul style="list-style-type: none"> • AN ELEMENT FOR GROUPING POLICY ACTIONS
POLICY COMMAND ACTION	<ul style="list-style-type: none"> • DEFINES A COMMAND THAT IS TO BE EXECUTED WHEN A POLICY CONDITION DEFINED AS A SIBLING ELEMENT IS ESTABLISHED

Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Docket No. 16869N-091900US

Sheet 3 of 15

3/15
FIG. 4A

```

<!ELEMENT PolicyRule
(
  (
    Policy Wait Event Condition* |
    Policy Schedule Condition* |
    Policy Command Result Condition*
  )
  (
    Compound Policy Action |
    Policy Command Action |
    Policy Rule
  )+
  Global Environment*
)
>
<!ATTLIST Policy Rule
  Policy Rule Name
    CDATA
    #IMPLIED
  Condition List Type
    (CNF | DNF)
    "CNF"
  Rule Usage
    CDATA
    #IMPLIED
  Host Name
    CDATA
    #IMPLIED
  Global Environment File Name
    CDATA
    #IMPLIED
  Time Period
    CDATA
    #IMPLIED
  Time Zone ID
    CDATA
    #IMPLIED
>
<!--*****-->
<!--Policy Wait Event Condition element-->
<!--*****-->
<ELEMENT Policy Wait Event Condition
  EMPTY
>
<!ATTLIST Policy Wait Event Condition
  Policy Condition Name
    CDATA
    #IMPLIED
  Event ID
    CDATA
    #REQUIRED
  Event Message
    CDATA
    #IMPLIED
  Event Message Pass Name
    CDATA
    #IMPLIED
  Watching Host Name

```

Applicant: Masanori HONDA, et al.
Title : Method and System for Job Management
Atty Docket No. 16869N-091900US
Sheet 4 of 15

4/15

FIG. 4B

```
<!--*****-->
<!--Policy element -->
<!--*****-->
<!ELEMENT Policy
(
  Policy Group |
  Policy Rule
)+
>
<!ATTLIST Policy
  Version
    CDATA
    #REQUIRED
>

<!--*****-->
<!--Policy Group element-->
<!--*****-->
<!ELEMENT Policy Group
(
  (
    Policy Group |
    Policy Rule
  )*.
  Holiday Or Exclude Data*
  Global Environment*
)
>
<!ATTLIST Policy Group
  Policy Group Name
    CDATA
    #REQUIRED
  Holiday Day Of Week
    CDATA
    "0x00"
  Day Start Time
    CDATA
    "0C00"
  Global Environment File Name
    CDATA
    #IMPLIED
  Time Period
    CDATA
    #IMPLIED
  Time Zone ID
    CDATA
    "Local"
>

<!--*****-->
<!--Policy element-->
<!--*****-->
```

Applicant: Masanori HONDA, et al.

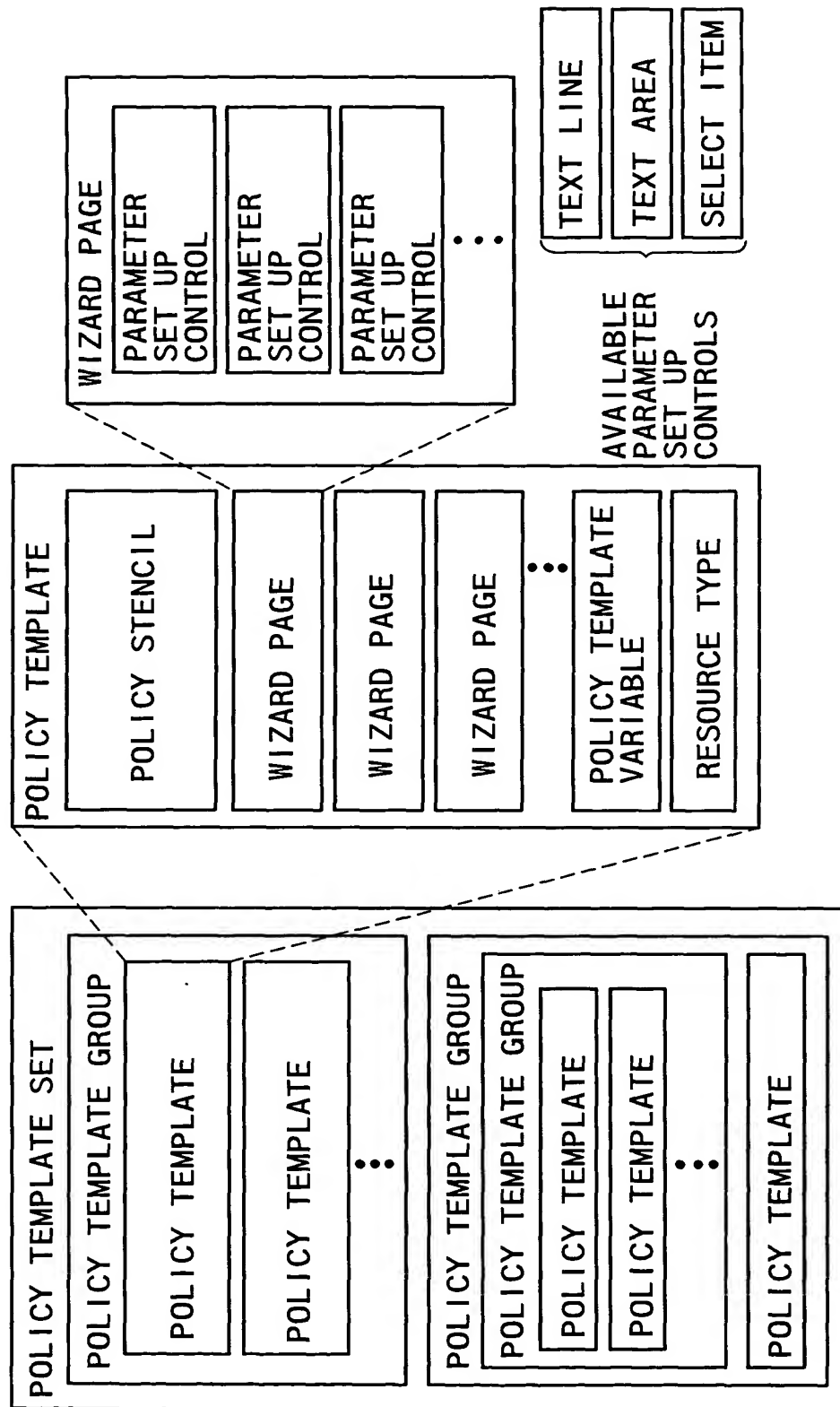
Title: Method and System for Job Management

Attorney Docket No. 16869N-091900US

Sheet 5 of 15

5/15

FIG. 5



Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty D ck t No. 16869N-091900US

Sh et 6 of 15

6/15

FIG. 6

OVERVIEW	
ELEMENT NAME	
POLICY TEMPLATE SET	<ul style="list-style-type: none"> • A ROOT ELEMENT FOR ALL THE FOLLOWING ELEMENTS
POLICY TEMPLATE GROUP	<ul style="list-style-type: none"> • AN ELEMENT FOR GROUPING POLICY TEMPLATES • THE POLICY TEMPLATE GROUP CAN BE WRITTEN IN A NESTED FORM AND PLAYS A ROLE SIMILAR TO THAT OF THE FILE SYSTEM'S FOLDER (DIRECTORY)
POLICY TEMPLATE	<ul style="list-style-type: none"> • AN ELEMENT FOR FORMING VARIOUS DEFINITIONS FOR GENERATING ONE POLICY RULE <ul style="list-style-type: none"> • HAS CHILD ELEMENTS INCLUDING POLICY STENCIL, WIZARD PAGE, POLICY TEMPLATE VARIABLE, AND RESOURCE TYPE
POLICY STENCIL	<ul style="list-style-type: none"> • AN ELEMENT FOR DEFINING A MODEL FOR A POLICY RULE • CONTAINS A REFERENCE TO A POLICY TEMPLATE VARIABLE AND A POLICY STENCIL CONTROL STATEMENT WITHIN A POLICY RULE DEFINED BY A POLICY DEFINITION XML FILE
WIZARD PAGE	<ul style="list-style-type: none"> • AN ELEMENT FOR DEFINING A WIZARD WINDOW (PARAMETER SETUP PAGE) • EACH WIZARD PAGE SERVES AS A WIZARD WINDOW PAGE • ONE OR MORE PARAMETER SETUP CONTROLS CAN BE DEFINED FOR EACH WIZARD PAGE
PARAMETER SETUP CONTROL	<ul style="list-style-type: none"> • AN ELEMENT FOR FINALIZING A POLICY TEMPLATE VARIABLE (VALUE SUBSTITUTION) • EACH PARAMETER SETUP CONTROL FINALIZES ONE POLICY TEMPLATE VARIABLE
TEXT LINE	• A CONTROL FOR SPECIFYING ONE CHARACTER STRING LINE
TEXT AREA	• A CONTROL FOR SPECIFYING A PLURALITY OF CHARACTER STRING LINES
SELECT ITEM	• A CONTROL FOR DISPLAYING A PLURALITY OF ITEMS AND SELECTING A SPECIFIC ITEM FROM THEM
POLICY TEMPLATE VARIABLE	<ul style="list-style-type: none"> • A VARIABLE DECLARED FOR A POLICY TEMPLATE. THE METHOD FOR FINALIZING ITS VALUE IS DEFINED BY A PARAMETER SETUP CONTROL WITHIN A WIZARD PAGE, AND THE VALUE IS REFERENCED WITHIN A POLICY STENCIL OR WIZARD PAGE
RESOURCE TYPE	<ul style="list-style-type: none"> • AN ELEMENT FOR DEFINING WHICH RESOURCE CAN BE ASSOCIATED WITH A POLICY TEMPLATE

Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Dock t No. 16869N-091900US

Sheet 7 of 15

7/15

FIG. 7

```
<@ ValidIf (EXPRESSION) { @> //START STATEMENT
```

```
Policy Rule description
```

```
...
```

```
<@ { @>
```

```
//END STATEMENT
```

- THE EXPRESSION IS IN THE FOLLOWING FORMS. AN ATTEMPT IS MADE TO CONVERT VALUE 1 AND VALUE 2 INTO A NUMERICAL VALUE (Integer). IF THE ATTEMPT FAILS, VALUE 1 AND VALUE 2 WILL BE HANDLED AS A CHARACTER STRING.

VALUE 1 == VALUE 2	THE EXPRESSION IS TRUE IF VALUE 1 IS EQUAL TO VALUE 2.	
VALUE 1 != VALUE 2	THE EXPRESSION IS TRUE IF VALUE 1 IS NOT EQUAL TO VALUE 2.	
VALUE 1 <= VALUE 2	THE EXPRESSION IS TRUE IF VALUE 1 IS SMALLER THAN OR EQUAL TO VALUE 2.	
VALUE 1 >= VALUE 2	THE EXPRESSION IS TRUE IF VALUE 1 IS GREATER THAN OR EQUAL TO VALUE 2.	
VALUE 1 < VALUE 2	THE EXPRESSION IS TRUE IF VALUE 1 IS SMALLER THAN VALUE 2.	
VALUE 1 > VALUE 2	THE EXPRESSION IS TRUE IF VALUE 1 IS GREATER THAN VALUE 2.	

- A PLURALITY OF EXPRESSIONS CAN BE COMBINED BY ORING (|) OR ANDING (&). PARENTHESES " () " CAN ALSO BE DESIGNATED TO SPECIFY THE ORDER OF PRIORITY.

Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Docket No. 16869N-091900US

Sheet 8 of 15

8/15

FIG. 8

```
<@ ForEach VARIABLE NAME (LIST) { @> //START STATEMENT
```

```
    Policy Rule description
```

```
    ...
```

```
<@ { @> //END STATEMENT
```

• WITHIN A POLICY RULE DESCRIPTION BETWEEN THE START STATEMENT AND END STATEMENT, THE "VARIABLE REFERENCE" AND "SERIAL NUMBER REFERENCE" DESCRIPTIONS CAN BE WRITTEN AS INDICATED BELOW. WHEN A POLICY RULE IS GENERATED, THESE REFERENCE DESCRIPTIONS ARE REPLACED BY ACTUAL VALUES.

```
<@=VARIABLE NAME @>
```

• REPLACED BY A LIST ELEMENT VALUE.

```
<@=number (START NUMBER,NUMBER OF DIGITS) @>
```

• REPLACED BY A NUMERICAL VALUE ACCORDING TO A SEQUENCE OF LIST ELEMENTS.

• THE START NUMBER AND THE NUMBER OF DIGITS CAN BE SPECIFIED. IF, FOR INSTANCE, THE START NUMBER IS SET TO 5 WITH THE NUMBER OF DIGITS SET TO 3, THE DESCRIPTIONS ARE SEQUENTIALLY REPLACED BY THE CHARACTER STRINGS "005", "006", "007", AND SO ON.

Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Dock t No. 16869N-091900US

Sheet 9 of 15

9/15
FIG. 9A

```

Skip Rule Value
  CDATA
  "0"
>
<!--*****-->
<!--Text Line element-->
<!--*****-->
<!ELEMENT Text Line
  (
    Command |
    Text File |
    Java Class
  )?
>
<ATTLIST Text Line
  %ELEMENT Common;
  %Affix;
  %Parm Control Common;
  Text Type
    (Normal Text | Password)
    "Normal Text"
  Size
    CDATA
    #IMPLIED
  Max Length
    CDATA
    #IMPLIED
  Default Value
    CDATA
    #IMPLIED
  %Param Control Style;
  %Param Control Input Constrationt;
>
<!--*****-->
<!--Text Area element-->
<!--*****-->
<!ELEMENT Text Area
  (
    Command |
    Text File |
    Java Class
  )?
>
<!ATTLIST Text Area
  Element Common;
  %Affix;
  %Param Control Common;
  Rows
    CDATA
    #IMPLIED
  Columns
    CDATA
    #IMPLIED
  Default Value
    CDATA
    #IMPLIED
  %Param Control STYLE;

```

Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Docket No. 16869N-091900US

Sheet 10 of 15

10/15

FIG. 9B

```

Default Policy Rule Name
  CDATA
  #IMPLIED
Working Policy Group Name
  CDATA
  #IMPLIED
>
<!--*****-->
<!--Policy template Variable element-->
<!--*****-->
<!--ELEMENT Policy template Variable
  EMPTY
>
<!--ATTLIST Policy Template Variable
  Name
    CDATA
    #REQUIRED
  Is Array
    (True | False)
    "False"
>
<!--*****-->
<!--Resource Type element-->
<!--*****-->
<!--ELEMENT Resource Type
  EMPTY
>
<!--ATTLIST Resource Type
  Name
    CDATA
    #REQUIRED
>
<!--*****-->
<!--Wizard Page element-->
<!--*****-->
<!--ELEMENT Wizard Page
  (
    Text Line |
    Text Area |
    Select Item
  )+
>
<!--ATTLIST Wizard Page
  %Element Common;
  Wizard Page Name
    CDATA
    #IMPLIED
  Policy Template Variable For Skip Rule
    CDATA
    #IMPLIED
  Skip Rule
    (GT | GE | LT | LE | EQ | NE)
    "ED"
  Compare As
    (String Integer)
    "Integer"

```

Applicant: Masanori HONDA, et al.

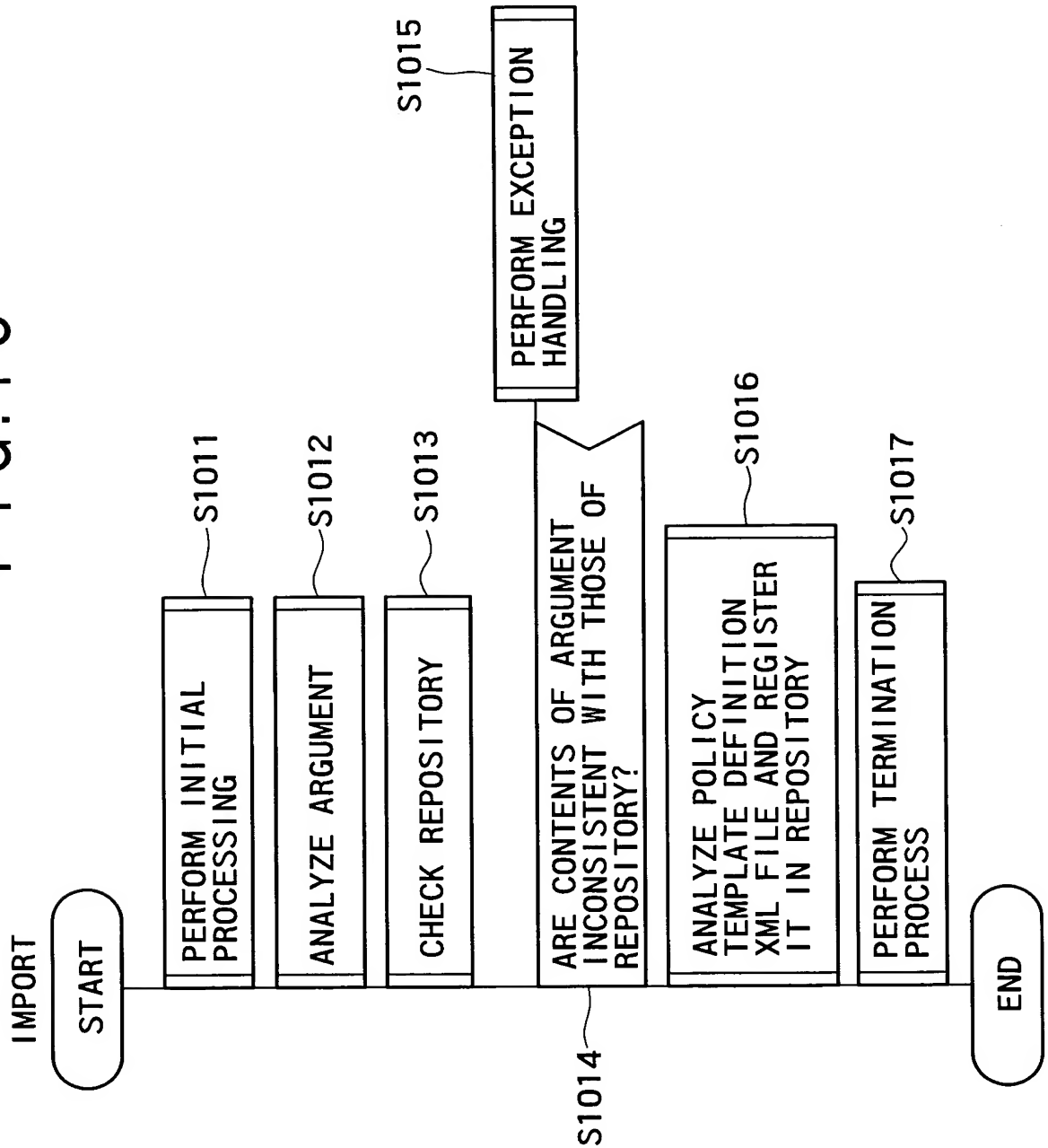
Title: Method and System for Job Management

Attorney Docket No. 16869N-091900US

Sheet 11 of 15

11/15

FIG. 10



Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

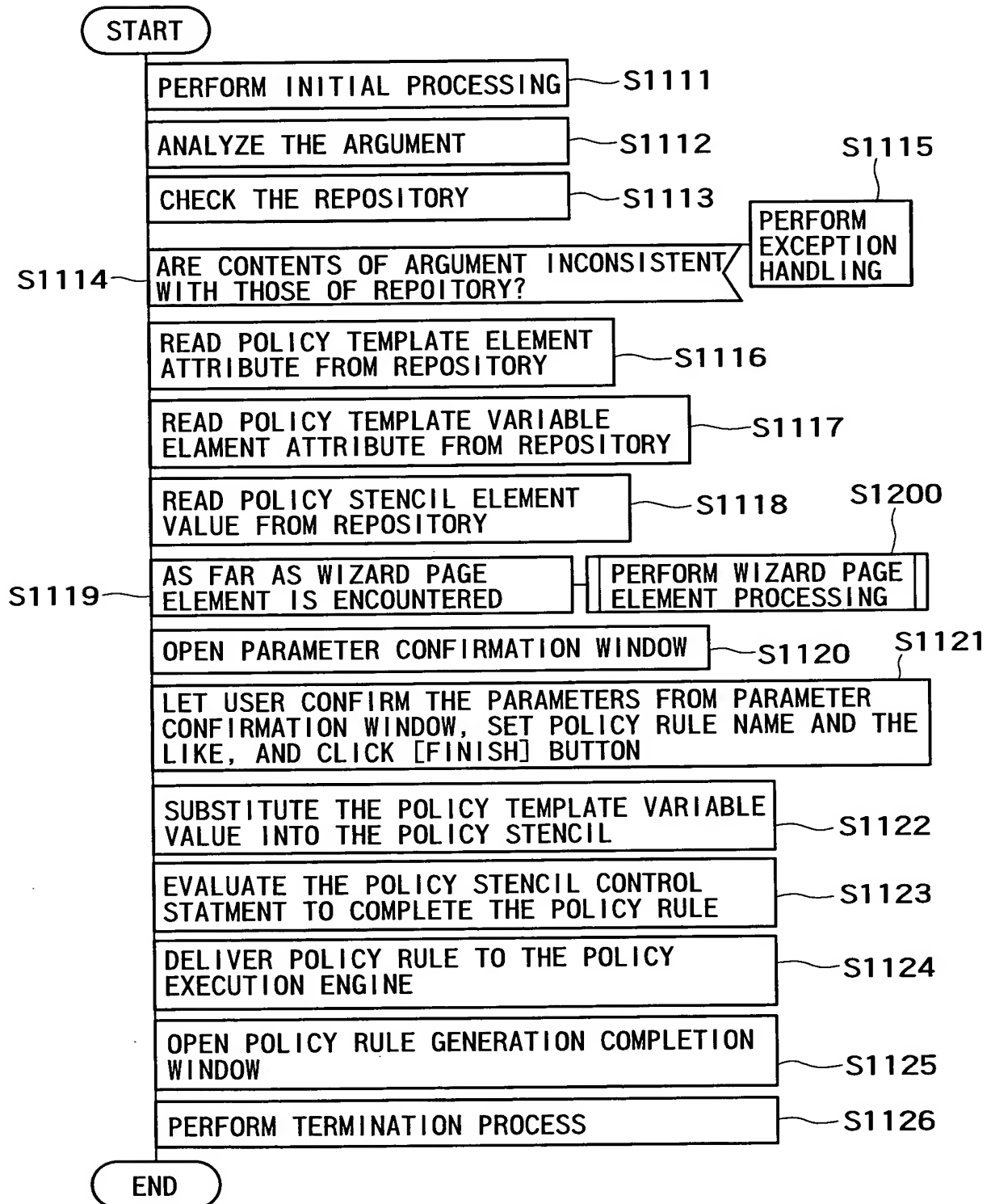
Atty Dock t No. 16869N-091900US

Sheet 12 of 15

12/15

FIG. 11

POLICY RULE GENERATION



Applicant: Masanori HONDA, et al.

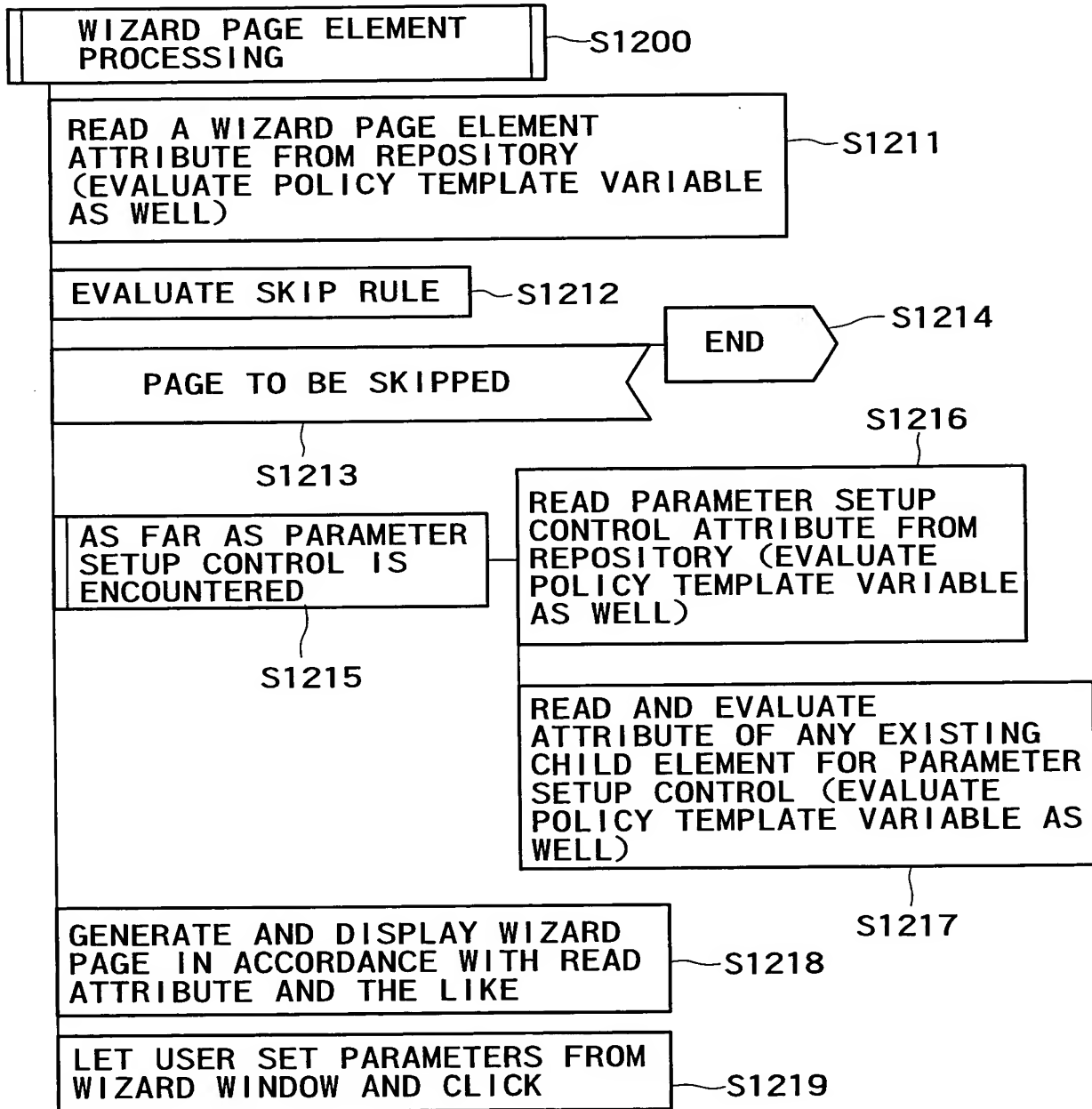
Title: Method and System for Job Management

Atty Docket No. 16869N-091900US

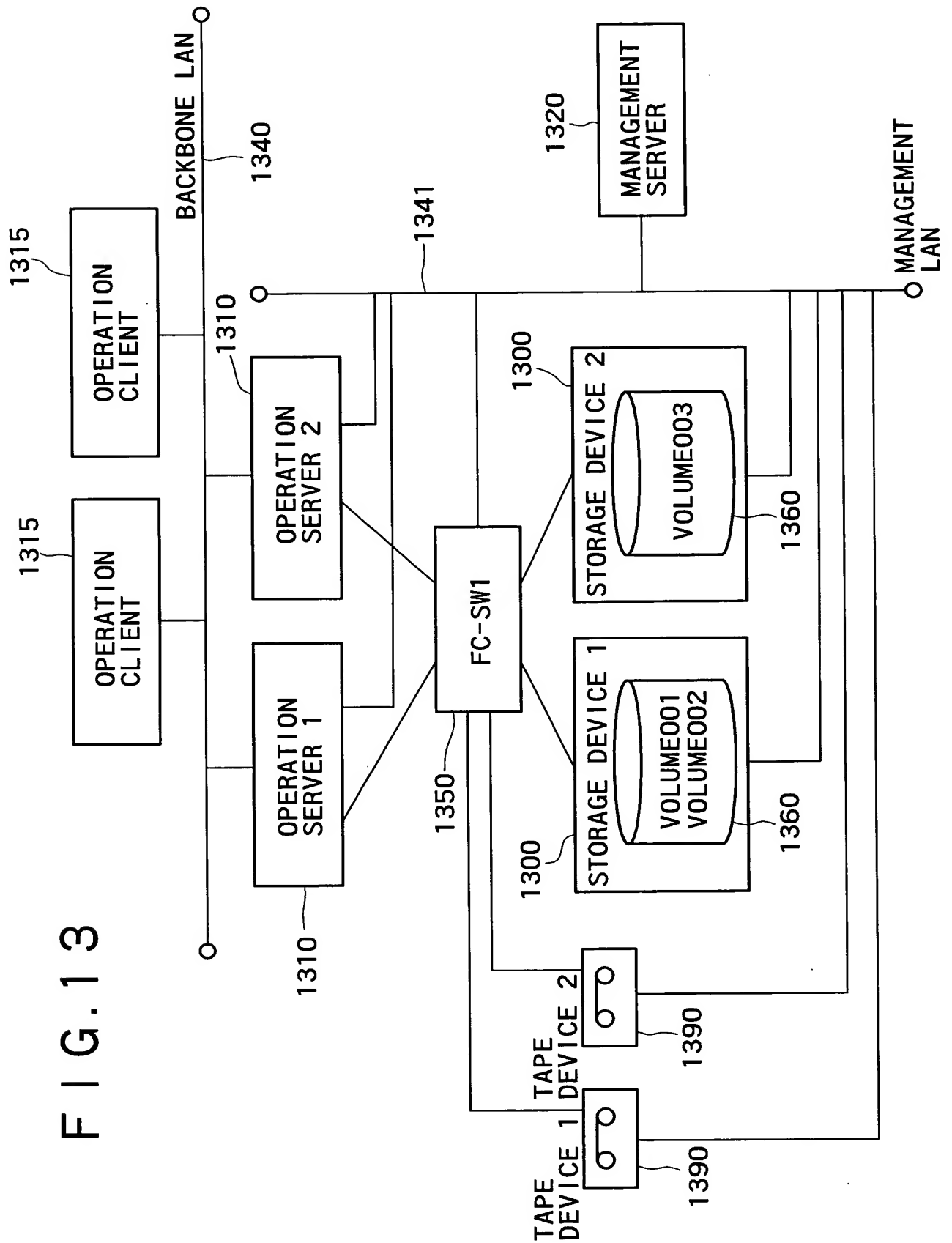
Sheet 13 of 15

13/15

FIG. 12



14/15



Applicant: Masanori HONDA, et al.

Title: Method and System for Job Management

Atty Docket No. 16869N-091900US

Sheet 15 of 15

15/15

FIG. 14

